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FILE 'REGISTRY' ENTERED AT 16:12:24 ON 30 JUN 2004
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STRUCTURE FILE UPDATES:   29 JUN 2004  HIGHEST RN 701199-61-3
DICTIONARY FILE UPDATES:  29 JUN 2004  HIGHEST RN 701199-61-3

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to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que l9
L1                STR
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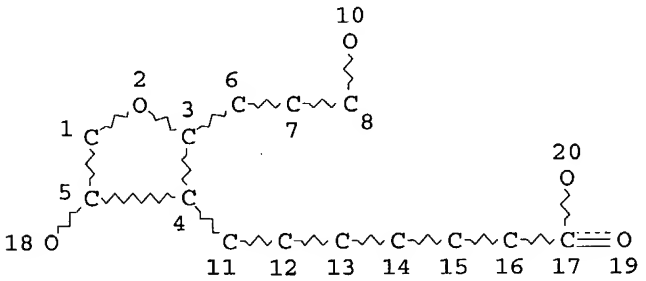


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   3
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L2            86 SEA FILE=REGISTRY SSS FUL L1
L6        138293 SEA FILE=REGISTRY ABB=ON  PLU=ON  C5-C6/ES
L7       2566128 SEA FILE=REGISTRY ABB=ON  PLU=ON  (OC4-C6 OR SC4-C6 OR NC4-C6
                 OR C6-C6 OR OC5-C6 OR SC5-C6 OR NC5-C6)/ES
L8       2696270 SEA FILE=REGISTRY ABB=ON  PLU=ON  L7 OR L6
L9             0 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND L8


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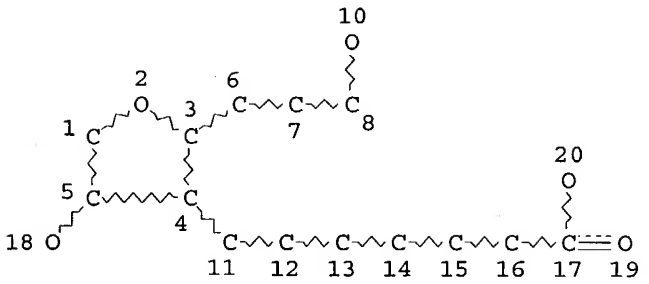
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 3
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L2 86 SEA FILE=REGISTRY SSS FUL L1
L10 29 SEA FILE=REGISTRY ABB=ON PLU=ON 46.150.18/RID AND L2

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FILE 'HCAPLUS' ENTERED AT 16:12:49 ON 30 JUN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 30 Jun 2004 VOL 141 ISS 1
FILE LAST UPDATED: 29 Jun 2004 (20040629/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que l11 nos
L1 STR
L2 86 SEA FILE=REGISTRY SSS FUL L1
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L11 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L10

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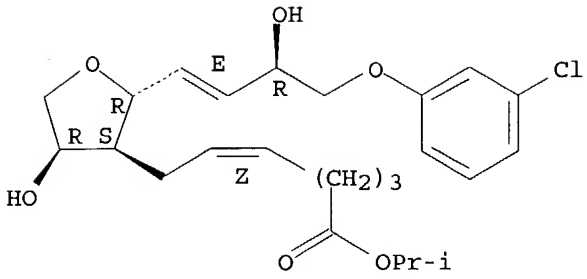
L11 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:97284 HCAPLUS
DN 138:142172
ED Entered STN: 07 Feb 2003
TI Prostaglandin analogues for promotion of hair growth
IN Cagle, Gerald D.; Bergamini, Michael V. W.
PA Alcon, Inc., Switz.
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-00
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003009820	A2	20030206	WO 2002-US23584	20020725
	WO 2003009820	A3	20030424		
	WO 2003009820	B1	20031113		
	W: AU, BR, CA, CN, GB, JP, MX, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	EP 1408913	A2	20040421	EP 2002-768349	20020725
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	US 2003199590	A1	20031023	US 2002-275543	20021106
PRAI	US 2001-307835P	P	20010725		
	US 2002-373300P	P	20020417		
	WO 2002-US23584	W	20020725		

OS MARPAT 138:142172
AB Methods and compns. for the promotion of hair growth in mammals, comprising PGF2α analogs are disclosed. A hair growth stimulant composition contained travoprost 0.004, dextran-70 0.1, hydroxypropyl Me cellulose 0.3, NaCl 0.77, KCl 0.12, Na2EDTA 0.05, benzalkonium chlorides 0.01, HCl and/or NaOH q.s. to pH 7.2-7.5, and purified water balance to 100 %.
ST hair growth stimulant prostaglandin FP agonist; travoprost hair growth stimulant
IT Hair preparations
(growth stimulants; prostaglandin analogs for promotion of hair growth)
IT Prostanoid receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type FP; prostaglandin analogs for promotion of hair growth)
IT 551-11-1D, PGF2α, analogs 130209-82-4, Latanoprost 157283-68-6, Travoprost **192992-26-0** 470455-84-6 494760-29-1
494760-30-4 494760-31-5 494760-32-6 494760-33-7
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(prostaglandin analogs for promotion of hair growth)
IT **192992-26-0**
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(prostaglandin analogs for promotion of hair growth)
RN 192992-26-0 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(2Z)-7-(1-methylethoxy)-7-oxo-2-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L11 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:84603 HCAPLUS
DN 136:129085
ED Entered STN: 31 Jan 2002
TI Use of nonsteroidal anti-inflammatory agents in combination with compounds that have FP prostaglandin agonist activity to treat glaucoma and ocular hypertension
IN Hellberg, Mark R.; Nixon, Jon C.
PA Alcon Manufacturing, Ltd., USA
SO U.S., 10 pp., Cont.-in-part of U.S. 6,066,671.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-215
NCL 514530000
CC 1-12 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6342524	B1	20020129	US 2000-575833	20000522
	US 6066671	A	20000523	US 1997-994903	19971219
	PT 1039895	T	20021031	PT 1998-960732	19981204
	ES 2178291	T3	20021216	ES 1998-960732	19981204
	US 2002103255	A1	20020801	US 2002-59692	20020128
	US 6646001	B2	20031111		
PRAI	US 1997-994903	A2	19971219		
	US 2000-575833	A2	20000522		

OS MARPAT 136:129085
AB Methods and compns. are provided for the treatment of glaucoma and ocular hypertension, comprising the administration of a prostaglandin analog (e.g. travoprost) and a prostaglandin synthesis inhibitor (e.g. nepafenac).
ST prostaglandin analog combination glaucoma ocular hypertension; prostaglandin synthesis inhibitor combination glaucoma; travoprost nepafenac glaucoma pharmaceutical
IT Prostaglandins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(F, agonists; nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)
IT Prostaglandins
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs; nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)

IT Antiglaucoma agents
(nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)
IT Anti-inflammatory agents
(nonsteroidal; nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)
IT Drug delivery systems
(ophthalmic; nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)
IT 78281-72-8, Nepafenac 78281-73-9 78281-77-3 120373-36-6, Unoprostone 130209-82-4, Latanoprost 157283-68-6, Travoprost **192992-28-2** 392230-89-6 392230-90-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)
RE.CNT 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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(2) Akarsu; Human Molecular Genetics 1996, V5(8), P1199 HCAPLUS
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(4) Andersen; Arch Ophthalmol 1997, V115, P384 MEDLINE
(5) Anon; GB 2059963 A 1981 HCAPLUS
(6) Anon; EP 0221753 A2 1987 HCAPLUS
(7) Anon; WO 9208465 1992 HCAPLUS
(8) Anon; WO 9517178 1995 HCAPLUS
(9) Anon; WO 9614411 1996 HCAPLUS
(10) Anon; WO 9640102 1996 HCAPLUS
(11) Anon; WO 9640103 1996 HCAPLUS
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(15) Clark; Invest Ophthalmol Vis Sci 1994, V35, P281 MEDLINE
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(21) Hellberg; US 5698733 A 1997 HCAPLUS
(22) Hellberg; US 5750564 A 1998 HCAPLUS
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(42) Sarfarazi; Genomics 1995, V30, P171 HCAPLUS
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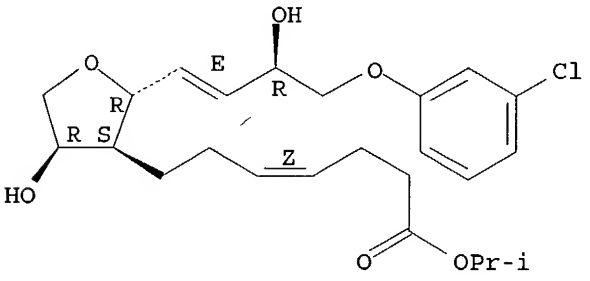
(60) Yanni; US 6066671 A 2000 HCAPLUS
(61) Zinke; US 6169111 B1 2001 HCAPLUS
(62) Zinke; US 6172109 B1 2001 HCAPLUS

IT **192992-28-2**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nonsteroidal anti-inflammatory agents in combination with compds. having FP prostaglandin agonist activity to treat glaucoma and ocular hypertension)

RN 192992-28-2 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L11 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:11126 HCAPLUS
DN 136:85723
ED Entered STN: 04 Jan 2002
TI Process and preparation of novel intermediates for an 11-oxa prostaglandin
IN Delgado, Pete; Conrow, Raymond E.; Dean, William D.; Gaines, Michael S.
PA USA
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent

LA English
IC ICM C07D409-02
ICS C07D333-72; C07D037-32
NCL 546152000
CC 26-3 (Biomolecules and Their Synthetic Analogs)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002002284	A1	20020103	US 2001-860772	20010518
	US 6441196	B2	20020827		
	US 2003013884	A1	20030116	US 2002-227912	20020826
	US 6620947	B2	20030916		
	US 2004063968	A1	20040401	US 2003-663855	20030916
PRAI	US 2000-205692P	P	20000519		
	US 2001-860772	A1	20010518		
	US 2002-227912	A1	20020826		

OS CASREACT 136:85723; MARPAT 136:85723
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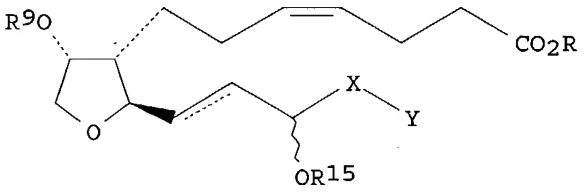

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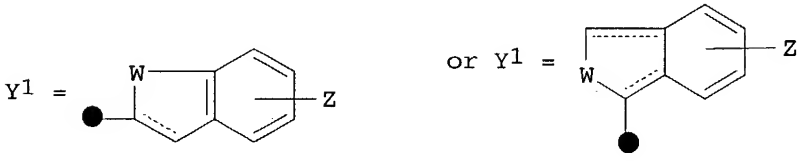
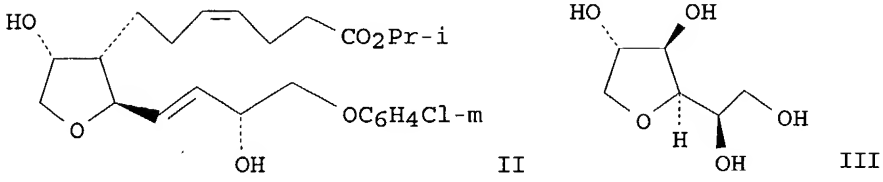




II

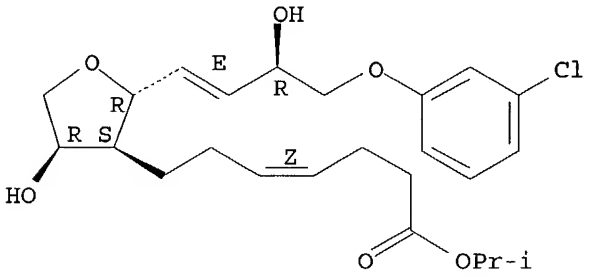
III

AB Improved processes and intermediates for preparation of 11-oxa prostaglandin analogs I (R = H, pharmaceutically acceptable cationic salt moiety, or CO2R forms a pharmaceutically acceptable ester moiety; R9O and R15O = same or different and constitute a free or functionally modified hydroxy group; --- = single or trans double bond; X = (CH2)p or (CH2)pO where p = 1-6; Y = (substituted)phenyl ring; or X-Y = (CH2)mY1 where m = 0-6 and W = CH2, O, S(O)x, NR10, CH2CH2, CH=CH, CH2O, CH2S(O)x, CH=N, CH2NR10 where x = 0-2 and R10 = H, alkyl, acyl; Z = H, alkyl, alkoxy, acyl(oxy), halo, amino, OH) were accomplished. Thus II was prepared in 90% yield from D-sorbitol via III in a multistep process.

ST oxaprostaglandin analog prepn; prostaglandin oxa analog prepn; heptenoate tetrahydrofuranylhydroxy analog prepn; furan hydroxytetrahydro heptenoic

acid deriv prepn
IT Prostaglandins
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(analogs, 11-oxa; preparation of 11-oxa prostaglandin analogs)
IT **192992-28-2P** 385842-08-0P **385842-09-1P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 11-oxa prostaglandin analogs)
IT 50-70-4, D-Sorbitol, reactions 67-63-0, 2-Propanol, reactions 77-76-9, 2,2-Dimethoxypropane 108-43-0, 3-Chlorophenol 534-07-6, 1,3-Dichloroacetone 1099-45-2 2623-87-2, 4-Bromobutyric acid 40665-94-9, Dimethyl 3-(3-chlorophenoxy)-2-oxopropyl phosphonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 11-oxa prostaglandin analogs)
IT 13605-65-7P 13605-66-8P 27299-12-3P 70923-64-7P, Isopropyl 4-bromobutyrate 73718-87-3P 101069-27-6P 101069-28-7P 101125-99-9P 159898-26-7P 256662-69-8P 374680-98-5P **374680-99-6P** 385841-95-2P 385841-96-3P 385841-97-4P 385841-98-5P 385841-99-6P 385842-00-2P 385842-01-3P 385842-02-4P 385842-03-5P 385842-04-6P 385842-05-7P 385842-06-8P **385842-07-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 11-oxa prostaglandin analogs)
IT **192992-28-2P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 11-oxa prostaglandin analogs)
RN 192992-28-2 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L11 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:851169 HCAPLUS
DN 135:371564
ED Entered STN: 23 Nov 2001
TI Process for preparing 11-oxaprostaglandins and intermediates
IN Fox, Martin Edward; Jackson, Mark
PA Chirotech Technology Limited, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07F007-18

CC 26-3 (Biomolecules and Their Synthetic Analogs)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001087897	A1	20011122	WO 2001-GB2184	20010516
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1282627	A1	20030212	EP 2001-936608	20010516
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2003166948	A1	20030904	US 2003-276846	20030505
PRAI	GB 2000-12249	A	20000519		
	WO 2001-GB2184	W	20010516		

OS CASREACT 135:371564; MARPAT 135:371564

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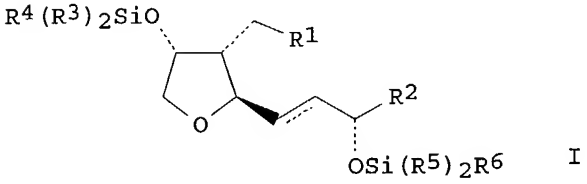

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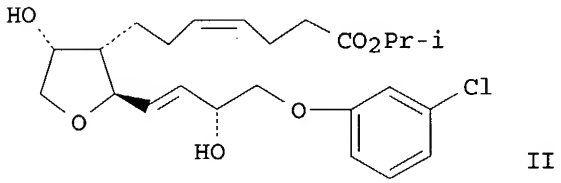


II

AB The present invention discloses a process for the preparation of 11-oxaprostaglandin derivs. [I; R1 = vinyl, trialkylsilylethynyl, formyl protected as an acetal, protected hydroxymethyl group; R2 = alkyl, aryloxy, alkoxy; R3-R6 = alkyl, aryl; dashed bond = single or double bond] and intermediates thereof. Thus, oxaprostaglandin derivative II was prepared via multistep synthetic sequence starting from Me (R)-(4-tert-butyldimethylsilyloxy)-3-hydroxybutanoate, trimethylsilylpropargyl bromide, allyl bromide and (E)-1-iodo-4-(3-chlorophenoxy)-3-tert-butyldimethylsilyloxy-1-butene.

ST prostaglandin oxa intermediate prepn

IT Asymmetric synthesis and induction
(of 11-oxaprostaglandins and intermediates)

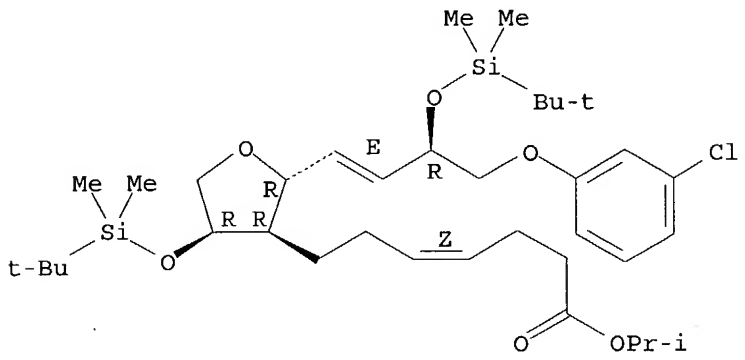
IT Prostaglandins
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 11-oxaprostaglandins and intermediates)

IT Coupling reaction
(stereoselective; in preparation of 11-oxaprostaglandins and intermediates)

IT 15489-27-7
RL: CAT (Catalyst use); USES (Uses)

(preparation of 11-oxaprostaglandins and intermediates)
IT 256662-69-8P 374680-85-0P 374680-86-1P 374680-87-2P 374680-88-3P
374680-89-4P 374680-90-7P 374680-91-8P 374680-92-9P 374680-93-0P
374680-94-1P 374680-95-2P 374680-96-3P 374680-97-4P 374680-98-5P
374680-99-6P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 11-oxaprostaglandins and intermediates)
IT **192992-28-2P** 374681-02-4P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 11-oxaprostaglandins and intermediates)
IT 75-77-4, Trimethylsilyl chloride, reactions 106-95-6, Allyl bromide, reactions 603-35-0, Triphenylphosphine, reactions 18162-48-6 38002-45-8, Trimethylsilylpropargyl bromide 40949-94-8, Potassiumbis(trimethylsilyl)amide 70923-64-7, Isopropyl 4-bromobutyrate 133095-91-7 374681-00-2 374681-01-3 374681-03-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 11-oxaprostaglandins and intermediates)
IT 374681-04-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of 11-oxaprostaglandins and intermediates)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Alcon Lab Inc; WO 9723223 A 1997 HCAPLUS
(2) Alcon Lab Inc; WO 9821182 A 1998 HCAPLUS
IT **374680-99-6P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 11-oxaprostaglandins and intermediates)
RN 374680-99-6 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-2,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

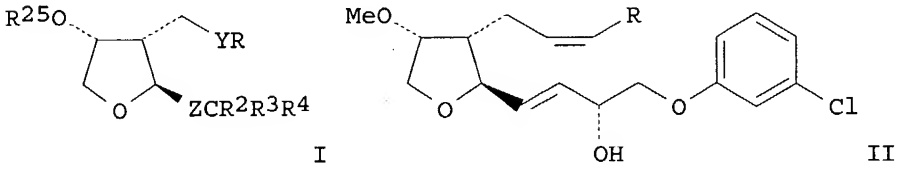


L11 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:114400 HCAPLUS
DN 132:151597
ED Entered STN: 17 Feb 2000
TI Preparation and formulation of tetrahydrofuran prostaglandin analogs for use as ocular hypotensives

IN Selliah, Robert D.; Hellberg, Mark R.; Klimko, Peter G.; Sallee, Verney L.; Zinke, Paul W.
PA Alcon Laboratories, Inc., USA
SO U.S., 12 pp., Cont.-in-part of U.S. Ser. No. 809,920.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-34
ICS C07D307-20
NCL 514473000
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 2, 63
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6025392	A	20000215	US 1998-109852	19980702
	WO 9723223	A1	19970703	WO 1996-US17900	19961112
	W: AU, CA, CN, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5994397	A	19991130	US 1997-809920	19970404
PRAI	US 1995-9866P	P	19951222		
	WO 1996-US17900	W	19961112		
	US 1997-809920	A2	19970404		

OS MARPAT 132:151597
GI



AB THF analogs of F-series prostaglandins,such as I [R = carboxyalkyl, amidoalkyl, hydroxyalkyl, etc.; R2, R3 = H, F, OH, etc.; R4 = phenoxyalkyl, phenylalkyl, etc.; R25 = H, acyl, alkyl; Y = cis-CH2CH:CH, cis-CH:CHCH2, (CH2)3; Z = C.tplbond.C, trans-CH:CH, (CH2)2], were prepared for use in treating glaucoma and ocular hypertension. Thus, THF prostanoids II (R = (CH2)nCO2CHMe2, n - 2, 3) were both prepared in a multistep synthetic sequence starting from 1,2-O-isopropylidene-α-D-xylofuranose. A formulation for eye drops containing II (R = (CH2)2CO2CHMe2) was presented.
ST THF prostaglandin analog prepn antiglaucoma agent; ocular hypotensive THF prostaglandin analog prepn
IT Antiglaucoma agents
(preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostanoids; preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)
IT **257945-30-5P** 257945-31-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)

IT 867-13-0, Triethyl phosphonoacetate 4009-98-7, (Methoxymethyl)triphenylphosphonium chloride 17814-85-6 17857-14-6 20031-21-4 40665-94-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)

IT 6022-96-4P 6698-46-0P 58399-68-1P 80923-96-2P 192991-91-6P 192991-92-7P 192991-93-8P 192991-94-9P 192991-95-0P 192991-98-3P 192992-00-0P 192992-02-2P **192992-03-3P** 193075-40-0P 208180-29-4P 208180-30-7P 208180-62-5P 242812-26-6P 242812-27-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

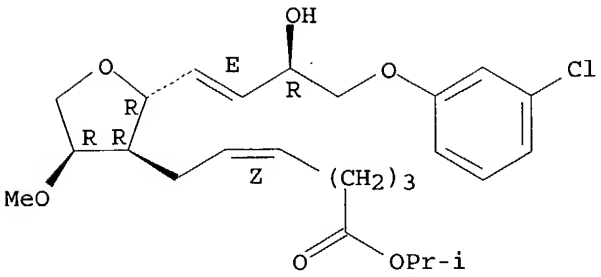
(1) Alm; Current Opinion in Ophthalmology 1993, V4(II), P44
(2) Anon; GB 1458164 1976 HCAPLUS
(3) Anon; DE 2460977 1976 HCAPLUS
(4) Anon; DE 2601333 1976 HCAPLUS
(5) Anon; DE 2618861 1976 HCAPLUS
(6) Anon; DE 2739277 1978 HCAPLUS
(7) Anon; GB 1539364 1979 HCAPLUS
(8) Anon; EP 0667160 A2 1995 HCAPLUS
(9) Anon; EP 0686628 A2 1995 HCAPLUS
(10) Anon; WO 9526729 1995 HCAPLUS
(11) Arndt; Afr J Chem 1981, V34(4), P121 HCAPLUS
(12) Chan; US 5574066 1996 HCAPLUS
(13) Giuffre; Graefe's Arch Clin Exp Ophthalmol 1985, V222, P139 MEDLINE
(14) Hanessian; Carbohydrate Research 1985, V141, P221 HCAPLUS
(15) Kerstetter; American Journal of Ophthalmology 1988, V105, P30 HCAPLUS
(16) Lourens; US 4133817 1979 HCAPLUS
(17) Lourens; Tetrahedron Letters 1975, V43, P3719
(18) Nakajima; Graefe's Arch Clin Exp Ophthalmol 1991, V229, P411 MEDLINE
(19) Thiem; Liebigs Ann Chem 1985, V2151, P2164
(20) Thierauch; Journal of Hypertension 1994, V12, P1 HCAPLUS
(21) Verdoorn; S Afr Tydskr Chem 1987, V40(2), P134 HCAPLUS
(22) Vlattas; US 3883659 1975 HCAPLUS
(23) Vlattas; US 4088779 1978 HCAPLUS
(24) Vlattas; Tetrahedron Letters 1974, 51/52, P4451 HCAPLUS
(25) Vlattas; Tetrahedron Letters 1974, 51/52, P4455 HCAPLUS

IT **257945-30-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and formulation of THF prostaglandin analogs for use as ocular hypotensives)

RN 257945-30-5 HCAPLUS

CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-7-O-methyl-6-[(2Z)-7-(1-methylethoxy)-7-oxo-2-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



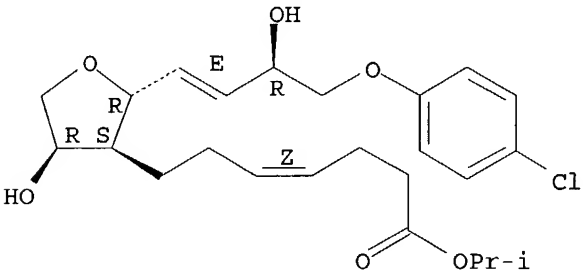
L11 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:84616 HCAPLUS
DN 132:141953
ED Entered STN: 04 Feb 2000
TI Ophthalmic compositions containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension
IN Ponticello, Gerald S.; Sugrue, Michael F.
PA Merck & Co., Inc., USA
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-215
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000004899	A1	20000203	WO 1999-US16374	19990720
	W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2337349	AA	20000203	CA 1999-2337349	19990720
	AU 9951144	A1	20000214	AU 1999-51144	19990720
	EP 1100491	A1	20010523	EP 1999-935726	19990720
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002521333	T2	20020716	JP 2000-560892	19990720
PRAI	US 1998-119951	A	19980721		
	WO 1999-US16374	W	19990720		

AB Combinations of a prostaglandin, or its derivative, hypotensive lipids derived from a prostaglandin or prostaglandin derivative or an ophthalmol. acceptable salt and a topical carbonic anhydrase inhibitors or their salts are particularly useful in the treatment of ocular hypertension and glaucoma. The combinations are characterized by an improved effect and reduced side-effects. Thus, a solution contained (S,S)-(-)-5,6-dihydro-4-ethylamino-6-methyl-4H-thieno-[2,3b]thiopyran-2-sulfonamide-7,7-dioxide monohydrochloride (carbonic anhydrase inhibitor) 22.26, (+)-isopropylfluprostenol (prostaglandin derivative) 10.0, sodium citrate-2H2O 2.940, benzalkonium chloride 0.075, hydroxyethyl cellulose 5.00, sodium hydroxide qs to ph 6.0, mannitol 16.00, and water for injection qs to 1000 g.
ST ophthalmic prostaglandin carbonic anhydrase inhibitor; ocular hypertension

prostaglandin carbonic anhydrase inhibitor
IT Antiglaucoma agents
(ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT Prostaglandins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT Drug delivery systems
(ophthalmic; ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prostaglandin-derived; ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT 9001-03-0, Carbonic anhydrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor; ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT 11138-66-2, Xanthan gum 13345-50-1, Prostaglandin A2 14152-28-4
27376-76-7 38562-01-5 53764-90-2 71010-52-1, Gellan gum
120279-96-1 120373-16-2 120373-24-2 122028-16-4 130693-82-2
135273-39-1 138890-50-3 138890-62-7 138890-75-2 138890-81-0
139066-78-7 141115-93-7 216854-98-7 246145-93-7 **256926-02-0**
256944-51-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
IT **256926-02-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing prostaglandins and carbonic anhydrase inhibitors for treatment of ocular hypertension)
RN 256926-02-0 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(4-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L11 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:84614 HCAPLUS
DN 132:127751
ED Entered STN: 04 Feb 2000
TI Ophthalmic compositions containing carbonic anhydrase inhibitor, β-adrenergic antagonist, and prostaglandin for treating ocular hypertension
IN Ponticello, Gerald S.; Sugrue, Michael F.

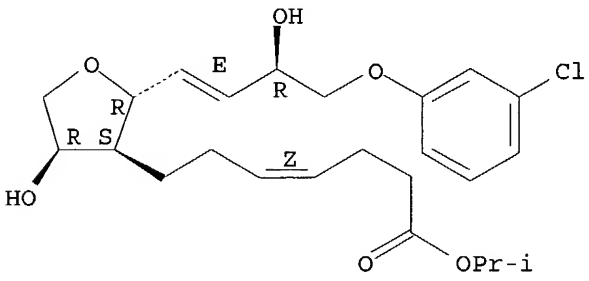
PA Merck & Co., Inc., USA
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC A61K031-215
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000004898	A1	20000203	WO 1999-US16143	19990716
W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2337399	AA	20000203	CA 1999-2337399	19990716
AU 9950011	A1	20000214	AU 1999-50011	19990716
EP 1109546	A1	20010627	EP 1999-934101	19990716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002521332	T2	20020716	JP 2000-560891	19990716
PRAI US 1998-93594P	P	19980721		
WO 1999-US16143	W	19990716		

OS MARPAT 132:127751
AB Combinations of a carbonic anhydrase inhibitor (0.5-3.0%), a β-adrenergic antagonist (0.1-0.5%), and a prostaglandin or a prostaglandin derivative (0.03-1.0%) are particularly useful in the treatment of ocular hypertension (glaucoma). The combinations are characterized by an improved therapeutic effect and reduced side-effects. E.g., an ophthalmic formulation was prepared containing a carbonic anhydrase inhibitor, MK 507, 22.26 g, 13,14-dihydro-15-keto-20-ethyl-PGF2 iso-Pr ester 10 g, (S)-(-)-(tert-butylamino)-3-[(4-morpholino-1,2,5-thiadiazol-3-yl)oxy]-2-propanol maleate 6.834 g, Na citrate·2H2O 2.940 g, benzalkonium chloride 0.075 g, hydroxyethyl cellulose 5.00 g, NaOH as needed for pH = 6.0, mannitol 16.00 g, and water for injection up to 1000 g. The active compds., phosphate buffer salts, benzalkonium chloride, and Polysorbate 80 were added to and suspended or dissolved in water. The pH of the composition was adjusted to 5.5-6.0 and diluted 30 to volume The composition was rendered sterile by filtration through a sterilizing filter.
ST anhydrase inhibitor beta blocker prostaglandin ophthalmic glaucoma; antiglaucoma anhydrase inhibitor beta adrenergic antagonist prostaglandin
IT Antiglaucoma agents
(ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT Prostaglandins
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT Drug delivery systems
(ophthalmic; ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT Drug delivery systems
(solns., ophthalmic; ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)

IT Drug delivery systems
(suspensions, ophthalmic; ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT Adrenoceptor antagonists
(β-; ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT 9001-03-0, Carbonic anhydrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT 13345-50-1, PGA2 14152-28-4, PGA1 22664-55-7, Metipranolol 26839-75-8, Timolol 33305-95-2 35850-13-6 38562-01-5, Prostaglandin F2α tromethamine salt 39552-01-7, Befunolol 41639-83-2D, esters 47141-42-4, Levobunolol 51781-06-7, Carteolol 53764-90-2 58581-22-9 63659-18-7, Betaxolol 118565-33-6 120279-96-1 120373-24-2 120373-36-6 130209-82-4 130693-82-2 134217-11-1 135273-39-1 138890-62-7 138890-84-3 139066-78-7 157283-68-6 161833-99-4 162478-72-0 164582-55-2 179937-10-1 **192992-28-2** 216780-87-9 216780-88-0 216780-89-1 256444-30-1
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
IT 11138-66-2, Xanthan gum 71010-52-1, Gellan gum
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bito; US 4599353 A 1986 HCAPLUS
IT **192992-28-2**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic compns. containing anhydrase inhibitor, β-blocker, and prostaglandin for glaucoma treatment)
RN 192992-28-2 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L11 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:10635 HCAPLUS
DN 132:69332

ED Entered STN: 06 Jan 2000
TI Storage-stable prostaglandin compositions
IN Schneider, L. Wayne; Bawa, Rajan; Weiner, Alan L.
PA Alcon Laboratories, Inc., USA
SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 33,748, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-557
NCL 514530000
CC 63-6 (Pharmaceuticals)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6011062	A	20000104	US 1999-246072	19990209
	US 5631287	A	19970520	US 1994-362677	19941222
	US 5849792	A	19981215	US 1996-738629	19961029
PRAI	US 1994-362677	A3	19941222		
	US 1996-738629	A2	19961029		
	US 1998-33748	B2	19980224		

AB Polyethoxylated castor oils are used in prostaglandin compns. to enhance the chemical stability. A composition was prepared containing (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid iso-Pr ester and Cremophor EL.

ST prostaglandin compn ethoxylated castor oil
IT Castor oil
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethoxylated; storage-stable prostaglandin compns. containing ethoxylated castor oil)
IT Castor oil
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrogenated, ethoxylated; storage-stable prostaglandin compns. containing ethoxylated castor oil)
IT Polyoxyalkylenes, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(storage-stable prostaglandin compns. containing ethoxylated castor oil)
IT Prostaglandins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(storage-stable prostaglandin compns. containing ethoxylated castor oil)
IT 25322-68-3
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(storage-stable prostaglandin compns. containing ethoxylated castor oil)
IT 53764-90-2, PGF2α isopropyl ester 130209-82-4, Latanoprost 135646-98-9, 15-Ketolatanoprost 155206-02-3 157283-66-4, Cloprostenol isopropyl ester 163075-20-5 170291-05-1 170291-06-2 170291-07-3 170291-08-4 170291-11-9 170291-13-1 170552-18-8 170552-20-2 190951-81-6 190951-85-0 190951-87-2 190951-89-4 190951-91-8 190951-93-0 190951-94-1 190951-95-2 190951-96-3 190951-97-4 190951-98-5 190951-99-6 190952-00-2 190952-01-3 190952-02-4 190952-03-5 **192992-26-0** 246145-93-7 253436-50-9 253436-51-0
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(storage-stable prostaglandin compns. containing ethoxylated castor oil)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Anon; WO 8502841 1984 HCAPLUS
(2) Anon; EP 0132027 A1 1985 HCAPLUS
(3) Anon; EP 0330511 A2 1989 HCAPLUS
(4) Anon; EP 0407148 A3 1991
(5) Anon; EP 0418004 A2 1991 HCAPLUS
(6) Anon; EP 0429248 A2 1991 HCAPLUS
(7) Anon; EP 0435682 A2 1991 HCAPLUS
(8) Anon; EP 0645145 A3 1995 HCAPLUS
(9) Anon; EP 0667160 A2 1995 HCAPLUS
(10) Anon; WO 9505163 1995 HCAPLUS
(11) Anon; WO 9729752 1997 HCAPLUS
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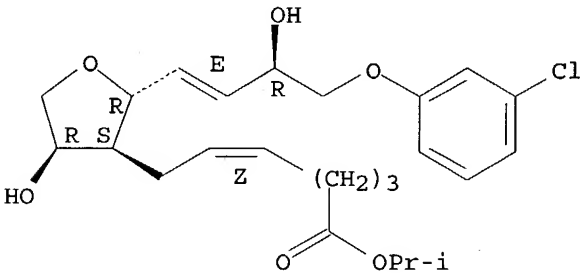
(14) Cherng-Chyi; US 5110493 1992 HCAPLUS
(15) DeSantis; US 5627209 1997 HCAPLUS
(16) Foster; Arch Ophthalmol 1979, V97/9, P1703
(17) Joose; US 4075333 1978 HCAPLUS
(18) Nagy; US 4960799 1990 HCAPLUS
(19) Nakajima; US 5098606 1992 HCAPLUS
(20) Sayed; Interna'l J of Pharmaceutics 1983, V13, P302
(21) Schneider; US 5631287 1997 HCAPLUS
(22) Schneider; US 5849792 1998 HCAPLUS
(23) Ushio; US 5185372 1993 HCAPLUS

IT **192992-26-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(storage-stable prostaglandin compns. containing ethoxylated castor oil)

RN 192992-26-0 HCAPLUS

CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(2Z)-7-(1-methylethoxy)-7-oxo-2-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

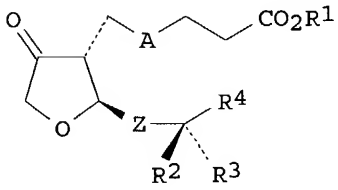


L11 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:9814 HCAPLUS
DN 130:66325
ED Entered STN: 07 Jan 1999
TI Keto-substituted tetrahydrofuran analogs of prostaglandins as ocular hypotensives
IN Selliah, Robert D.
PA Alcon Laboratories, Inc., USA
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07C405-00
ICS A61K031-557

CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9857930	A1	19981223	WO 1998-US11340	19980603
	W: AU, BR, CA, JP, MX, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5866602	A	19990202	US 1997-878031	19970618
	AU 9878101	A1	19990104	AU 1998-78101	19980603
PRAI	US 1997-878031		19970618		
	WO 1998-US11340		19980603		

OS MARPAT 130:66325
GI



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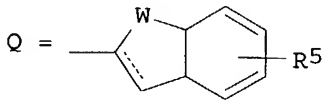

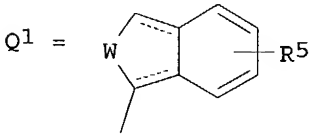

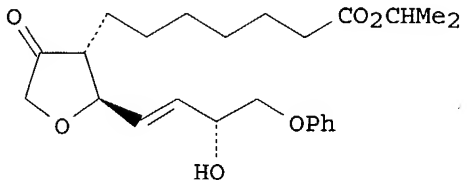

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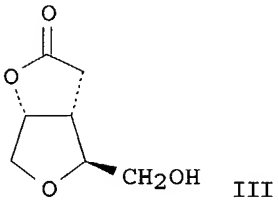

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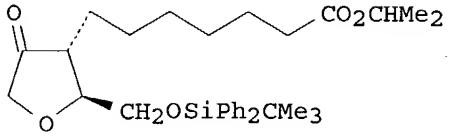


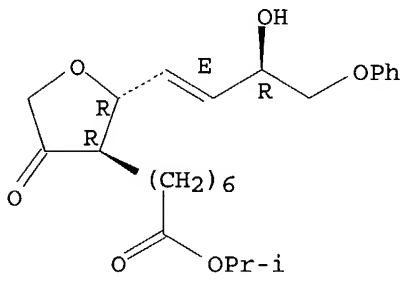
IV

AB Keto-substituted THF analogs of prostaglandins I (R1 = H, C1-5-alkyl, C3-6-cycloalkyl, cationic salt moiety; A = CH2CH=CH (cis olefin), CH=CHCH2 (cis olefin), CH2CH2CH2; Z = C.tplbond.C, trans-CH=CH; one of R2 and R3 = H and the other = F or OH, the OH may be free or functionally modified; R2R3 = OCH2CH2O, O; R4 = (CH2)mXPh, (CH2)pZ; m = 1-6, X = O, CH2, the Ph may be substituted with R5, R5 = halo, Me, CF3, cyano, MeO, acetyl; p = 0-6, Z = Q, Q1; W = O, CH2, CH2CH2, CH=CH) were prepared for treatment of glaucoma and ocular hypertension. Thus the tetrahydrofuranylheptanoate derivative II was prepared in 8 steps from the alc. III via the tetrahydrofuranylheptanoate derivative IV. Pharmaceutical formulations containing 0.01 and 0.003 wt% II were prepared

ST furanylheptanoate tetrahydro prepn ocular hypotensive; tetrahydrofuranylheptanoate prepn ocular hypotensive; THF prostaglandin analog prepn ocular hypotensive

IT Antiglaucoma agents
Glaucoma (disease)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
IT **217939-71-4P 217939-72-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
IT 17814-85-6, (4-Carboxybutyl)triphenylphosphonium bromide 40665-68-7, Dimethyl 3-phenoxy-2-oxopropylphosphonate 192991-95-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
IT 208180-29-4P 217939-65-6P 217939-66-7P 217939-67-8P 217939-68-9P 217939-69-0P 217939-70-3P 217939-73-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Chembro Holdings PTY Ltd; DE 2618861 A 1976 HCAPLUS
(2) Pfizer; GB 1539364 A 1979 HCAPLUS
(3) Stjernschantz, J; WO 9526729 A 1995 HCAPLUS
IT **217939-71-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of keto-substituted THF analogs of prostaglandins as ocular hypotensives)
RN 217939-71-4 HCAPLUS
CN L-lyxo-Oct-5-en-2-ulose, 1,4-anhydro-3,5,6-trideoxy-3-[7-(1-methylethoxy)-7-oxoheptyl]-8-O-phenyl-, (5E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



L11 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:341542 HCAPLUS
DN 129:41028
ED Entered STN: 06 Jun 1998
TI Preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives
IN Klimko, Peter G.; Zinke, Paul W.
PA Alcon Laboratories, Inc., USA; Klimko, Peter G.; Zinke, Paul W.
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07C405-00
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 2, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9821182	A2	19980522	WO 1997-US20857	19971107
	WO 9821182	A3	19980625		
	W: AU, CA, CN, JP, KR, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9854393	A1	19980603	AU 1998-54393	19971107
	EP 944593	A2	19990929	EP 1997-948304	19971107
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1237157	A	19991201	CN 1997-199645	19971107
	JP 2001504122	T2	20010327	JP 1998-522859	19971107
	KR 2000053228	A	20000825	KR 1999-704203	19990512
	BR 9901566	A	20010109	BR 1999-1566	19990520
	US 6235779	B1	20010522	US 1999-284431	19990602
PRAI	US 1996-30504P	P	19961112		
	WO 1997-US20857	W	19971107		

OS MARPAT 129:41028
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Cis-Δ4 analogs of prostaglandins I (A = CO2R, CONR1R2, CH2OR3, CH2NR4R5; R = H, cationic moiety, or CO2R = ophthalmically acceptable ester moiety; R1, R2 = H, alkyl; R3 = H, acyl, alkyl: R4, R5 = H, acyl, alkyl, if one of R4, R5 = acyl then the other = H or alkyl; n = 0, 2; L = OR6 in the α configuration where R6 = H, alkyl, acyl; R7 = H, alkyl, acyl; D, D1 = H, OR8, R8 = H, alkyl, acyl; X = (CH2)m, (CH2)mO, m = 1-6; Y = (un)substituted phenyl; XY = (CH2)pY1; p = 0-6; W = CH2, O, S, SO, SO2, NR9, CH:CH, CH2O, CH2S, CH2SO, CH2SO2, CH:N, CH2NR9; R9 = H, alkyl, acyl; Z = H, alkyl, alkoxy, acyl, acyloxy, halo, trihalomethyl, amino, alkylamino, acylamino, OH) were prepared for treatment of glaucoma and ocular hypertension. Thus, the diol II underwent tetrahydropyranylation, reduction and Wittig reaction with Ph3P+CH2OMe Cl- followed by cyclization to give the corresponding lactol, which underwent Wittig reaction with Ph3P+CH2CH2CH2CO2H Br- to give the tetranorprostadienoic acid III. Ophthalmic formulations containing 0.001% III were prepared

ST prostaglandin prepn ocular hypotensive; glaucoma treatment prostaglandin
IT Antiglaucoma agents
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

IT **192992-28-2P** 208112-13-4P 208115-11-1P 208180-50-1P
208180-52-3P 208180-54-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

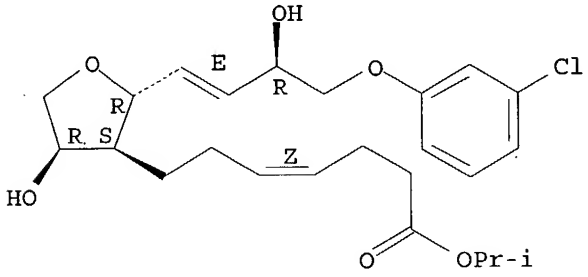
IT 110-87-2, 3,4-Dihydro-2H-pyran 4009-98-7 17857-14-6 39746-01-5
53273-61-3 53872-60-9 54094-19-8 178454-81-4 192991-95-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

IT 39746-00-4P 71358-54-8P 84786-80-1P 105674-66-6P 130386-85-5P
192992-22-6P 192992-23-7P **192992-24-8P 192992-25-9P**
208111-89-1P 208111-90-4P 208111-91-5P 208111-92-6P 208111-93-7P
208111-94-8P 208111-96-0P 208111-97-1P 208114-21-0P 208114-22-1P
208114-40-3P 208114-41-4P 208114-42-5P 208114-43-6P 208114-44-7P
208114-45-8P 208114-46-9P 208114-47-0P 208180-17-0P 208180-18-1P
208180-19-2P 208180-20-5P 208180-21-6P 208180-22-7P 208180-25-0P
208180-26-1P 208180-27-2P 208180-28-3P 208180-29-4P 208180-30-7P
208180-34-1P 208180-35-2P 208180-37-4P 208180-62-5P 208252-64-6P
208252-65-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

IT **192992-28-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cis-Δ4 analogs of prostaglandins as ocular hypotensives)

RN 192992-28-2 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L11 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:323138 HCAPLUS

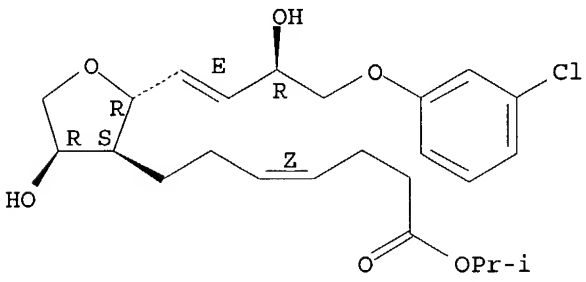
DN 129:19683
ED Entered STN: 30 May 1998
TI Use of a combination of carbonic anhydrase inhibitors and prostaglandins for treating glaucoma
IN Dean, Thomas R.; May, Jesse A.
PA Alcon Laboratories, Inc., USA; Dean, Thomas R.; May, Jesse A.
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-557
ICS A61K031-54
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9819680	A1	19980514	WO 1997-US15793	19970905
	W: AU, CA, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9742573	A1	19980529	AU 1997-42573	19970905
	AU 734789	B2	20010621		
	EP 948333	A1	19991013	EP 1997-940895	19970905
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001504100	T2	20010327	JP 1998-521363	19970905
	MX 9904069	A	20000531	MX 1999-4069	19990430
PRAI	US 1996-29538P	P	19961101		
	WO 1997-US15793	W	19970905		

AB Compns. for treating persons suffering from glaucoma or ocular hypertension consist of prostaglandins and carbonic anhydrase inhibitors. Thus, an ophthalmic composition (pH 7.1) contained brinzolamide 1.0, (+)-isopropylfluprostenol 0.005, HPMC 0.5, dibasic sodium phosphate 0.2, disodium edetate 0.01, NaCl 0.8, benzalkonium chloride 0.01, and Cremaphor 0.1%, and purified water qs.
ST antiglaucoma prostaglandin carbonic anhydrase inhibitor
IT Antiglaucoma agents
(carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
IT Drug delivery systems
(ophthalmic; carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
IT 138890-62-7, Brinzolamide 157283-68-6 **192992-28-2**
207670-11-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
IT 9001-03-0, Carbonic anhydrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
(1) Alcon Lab Inc; EP 0590786 A 1994 HCAPLUS
(2) Alcon Lab Inc; WO 9723223 A 1997 HCAPLUS
(3) Alcon Laboratories Inc; EP 0667160 A 1995 HCAPLUS
(4) Alcon Laboratories Inc; US 5378703 A 1995 HCAPLUS
(5) Bishop, J; US 5510383 A 1996 HCAPLUS
(6) Hoyng; SURVEY OF OPHTHALMOLOGY 1997, V41(S2), PS93
(7) Merck & Co; CN 1075634 A 1993
(8) Merck & Co; Ophthalmic Compositions Comprising Combinations of a Carbonic Anhydrase Inhibitor and a Prostaglandin or Prostaglandin Derivative 1993
(9) Pfeiffer, N; CURRENT OPINION IN OPHTHALMOLOGY 1994, V5(2), P20
(10) Ueno Seiyaku Oyo Kenkyujo Kk; EP 0501678 A 1992 HCAPLUS
(11) Von der Eltz; PHARMAZEUTISCHE ZEITUNG 1996, V141(8), P11 HCAPLUS
IT **192992-28-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbonic anhydrase inhibitors and prostaglandins for treatment of glaucoma)
RN 192992-28-2 HCAPLUS
CN L-altro-Oct-3-enitol, 5,8-anhydro-1-O-(3-chlorophenyl)-3,4,6-trideoxy-6-[(3Z)-7-(1-methylethoxy)-7-oxo-3-heptenyl]-, (3E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L11 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:503170 HCAPLUS
DN 127:135678
ED Entered STN: 09 Aug 1997
TI Preparation of substituted tetrahydrofuran analogs of prostaglandins as ocular hypotensives
IN Selliah, Robert D.; Hellberg, Mark R.; Klimko, Peter G.; Sallee, Verney L.; Zinke, Paul W.
PA Alcon Laboratories, Inc., USA; Selliah, Robert D.; Hellberg, Mark R.; Klimko, Peter G.; Sallee, Verney L.; Zinke, Paul W.
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-557
ICS C07D307-18; C07D307-20; C07D307-80; C07D407-06
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9723223 A1 19970703 WO 1996-US17900 19961112
W: AU, CA, CN, JP, MX, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
CA 2236582 AA 19970703 CA 1996-2236582 19961112
AU 9676106 A1 19970717 AU 1996-76106 19961112
AU 714272 B2 19991223
EP 869794 A1 19981014 EP 1996-938819 19961112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
CN 1205638 A 19990120 CN 1996-199181 19961112
JP 3032302 B2 20000417 JP 1997-523627 19961112
US 5994397 A 19991130 US 1997-809920 19970404
US 6025392 A 20000215 US 1998-109852 19980702
US 6197812 B1 20010306 US 1999-440248 19991115
US 2001029265 A1 20011011 US 2001-800179 20010306
US 6369102 B2 20020409
PRAI US 1995-9866P P 19951222
WO 1996-US17900 W 19961112
US 1997-809920 A2 19970404
US 1999-440248 A1 19991115
OS MARPAT 127:135678
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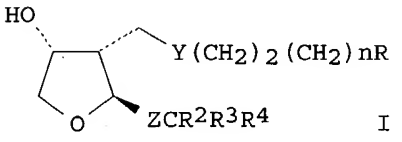

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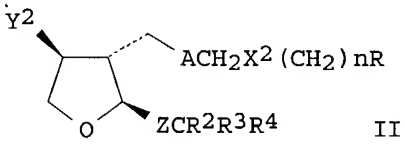
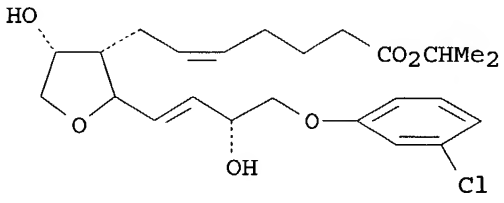


II



III

AB Prostaglandin THF analogs I and II [R = CO2R1, CONR7R8, CH2OR9, CH2NR10R11; R1 = H, cationic salt moiety; R7 = R8 = H, alkyl; R9 = R10 = R11 = H, acyl, alkyl; Y = (Z)-CH2CH:CH, (Z)-CH:CHCH2, (CH2)3; Z = (E)-CH:CH, (CH2)2, C.tplbond.C; Y2 = halogen, alkoxy; X2 = O, S, CH2; A = (Z)-CH:CH, (CH2)2, C.tplbond.C; R2 = R3 = H, F, OH; R2R3 = O, protected carbonyl; R4 = cyclohexyl, alkyl] were prepared for use in treating glaucoma and ocular hypertension (no data). Thus, prostaglandin analog III was prepared in a multistep synthesis starting from 1,2-O-isopropylidene-α-D-xylofuranose.

ST prostaglandin THF analog prepn ocular hypertension; glaucoma agent
prostaglandin THF analog prepn; oxaprostaglandin prepn glaucoma agent
ocular hypertension
IT Antihypertensives
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ocular; preparation of substituted THF analogs of prostaglandins as ocular hypotensives)
IT Antiglaucoma agents

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

IT Prostaglandins
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostanoids; preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

IT 98-88-4, Benzoyl chloride 108-98-5, Thiophenol, reactions 867-13-0, Triethylphosphonoacetate 4009-98-7, (Methoxymethyl)triphenylphosphonium chloride 17814-85-6, (4-Carboxybutyl)triphenylphosphonium bromide 17857-14-6, (3-Carboxypropyl)triphenylphosphonium bromide 20031-21-4 29921-57-1, Isopropyl bromoacetate 40665-94-9 58009-66-8 88738-78-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

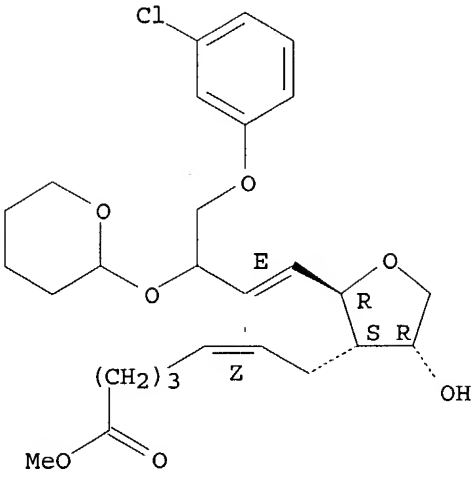
IT 6022-96-4P 6698-46-0P 58399-68-1P 77772-47-5P 80923-96-2P 192991-91-6P 192991-92-7P 192991-93-8P 192991-94-9P 192991-95-0P 192991-98-3P 192992-00-0P 192992-02-2P **192992-03-3P** **192992-04-4P** **192992-05-5P** 192992-06-6P 192992-07-7P 192992-08-8P 192992-09-9P 192992-10-2P 192992-11-3P 192992-12-4P 192992-13-5P 192992-14-6P 192992-15-7P 192992-16-8P 192992-17-9P 192992-18-0P 192992-19-1P 192992-20-4P 192992-21-5P 192992-22-6P 192992-23-7P **192992-24-8P** **192992-25-9P** 192992-30-6P 193075-40-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

IT **113428-35-6P** **192992-26-0P** 192992-27-1P **192992-28-2P** 192992-29-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

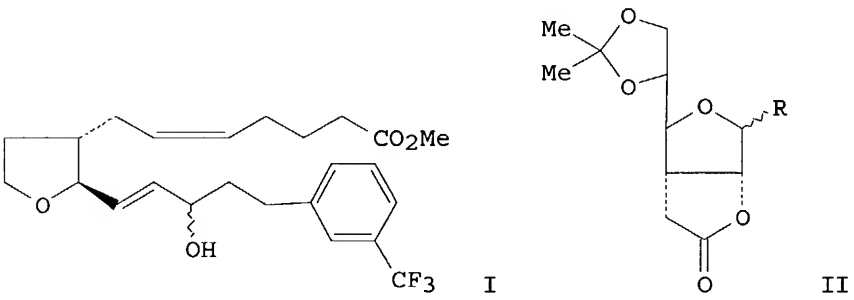
IT **192992-03-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted THF analogs of prostaglandins as ocular hypotensives)

RN 192992-03-3 HCAPLUS
CN D-ribo-Oct-5-enitol, 1,4-anhydro-8-O-(3-chlorophenyl)-3,5,6-trideoxy-3-[(2Z)-7-methoxy-7-oxo-2-heptenyl]-7-O-(tetrahydro-2H-pyran-2-yl)-, (5E,7ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

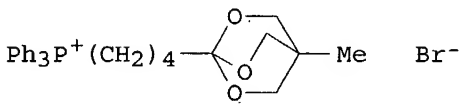


L11 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:131340 HCAPLUS
DN 108:131340
ED Entered STN: 15 Apr 1988
TI Synthesis of methyl (5Z,13E)(15S)-9α-acetoxy-15-hydroxy-17-(3-trifluoromethylphenyl)-11-oxa-18,19,20-trinorprosta-5,13-dienoate
AU Verdoorn, Gerhard H.; Holzapfel, Cedric W.; Koekemoer, Johannes M.
CS Dep. Chem., Rand Afrikaans Univ., Johannesburg, 2000, S. Afr.
SO South African Journal of Chemistry (1987), 40(2), 134-8
CODEN: SAJCDG; ISSN: 0379-4350
DT Journal
LA English
CC 26-3 (Biomolecules and Their Synthetic Analogs)
GI



I

II



III

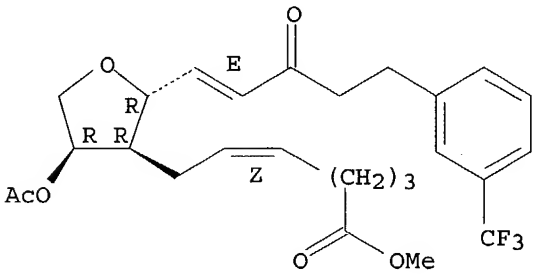
AB The title compound (I) was prepared from D-glucose. A key step in the synthesis was the deoxygenation of the furanose II (R = OH) by reaction with MeSO2Cl and NaBH3CN reduction of II (R = Cl). An improved method for the introduction of the ω-side chain utilizes the orthoester III.

Searched by P. Ruppel

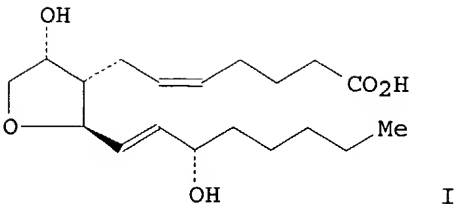
ST oxatrinorprostadienoate; prostaglandin oxa
IT Prostaglandins
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxatrinorprostadienoates, preparation of)
IT 779-89-5, 3-Trifluoromethylcinnamic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation of)
IT 58399-55-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of)
IT 70783-99-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Wittig reaction of, with tetrahydrofurancarboxaldehyde)
IT 113531-01-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)
IT 585-50-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
IT 113331-70-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydroxylation of)
IT 113331-72-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and deisopropylidenation of)
IT 113331-74-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 113331-78-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 113331-71-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with carboxybutyltriphenylphosphonium bromide)
IT 113331-73-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with dioxabicyclooctanol)
IT 113331-75-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with methoxide)
IT 455-03-8P, 3-(3-Trifluoromethylphenyl)propionyl chloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with methylphosphonate)
IT 113331-77-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with triphenylphosphine)
IT 113331-76-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and rearrangement of)
IT 101069-36-7P **113331-79-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
IT **113331-80-9P 113428-35-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 3143-02-0, 3-Hydroxymethyl-3-methyloxetane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromovaleryl chloride)
IT 17814-85-6, 4-Carboxybutyltriphenylphosphonium bromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dioxabicyclooctanol)
IT 4509-90-4, 5-Bromovaleryl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxymethylmethyloxetane)
IT 756-79-6, Dimethyl methylphosphonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with trifluoromethylphenylpropionyl chloride)
IT **113331-79-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 113331-79-6 HCAPLUS
CN 5-Heptenoic acid, 7-[4-(acetyloxy)tetrahydro-2-[3-oxo-5-[3-(trifluoromethyl)phenyl]-1-pentenyl]-3-furanyl]-, methyl ester, [2R-[2α(E),3β(Z),4β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L11 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1986:186178 HCAPLUS
DN 104:186178
ED Entered STN: 01 Jun 1986
TI Total synthesis of 11-oxaprostaglandin F2α and F2β
AU Hanessian, Stephen; Guindon, Yvan; Lavallee, Pierre; Dextraze, Pierre
CS Dep. Chem., Univ. Montreal, Montreal, QC, H3C 3V1, Can.
SO Carbohydrate Research (1985), 141(2), 221-38
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 33
OS CASREACT 104:186178
GI



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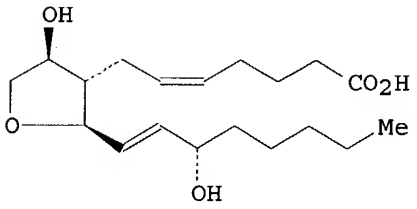
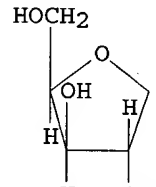
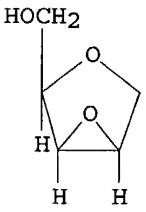




II III



IV

AB Title compds. I and II and their C-15 epimers were synthesized from 1,4-anhydro-D-glucitol. Also prepared were chiral THF derivs. such as III and IV. I and II did not show smooth-muscle contracting ability.

ST anhydroglucitol oxa prostaglandin synthon; glucitol anhydro prostaglandin synthon

IT Synthons
(anhydroglucitol, for prostaglandin oxa analogs)

IT Prostaglandins
RL: RCT (Reactant); RACT (Reactant or reagent)
(analogs, PGF2 oxa, total synthesis of, from anhydroglucitol)

IT 36969-89-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(Wittig condensation of, in synthesis of oxa prostaglandins)

IT 105-53-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation with, in synthesis of oxa prostaglandins from anhydroglucitol)

IT 55730-76-2P 101144-12-1P 101144-18-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and alkylation with di-Et malonate)

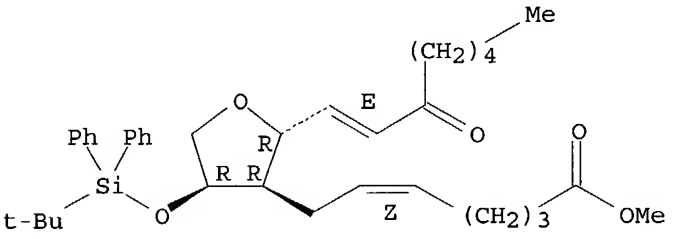
IT 55285-66-0P 55730-81-9P **101069-33-4P** 101069-52-7P
101069-55-0P 101144-16-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and borohydride reduction of)

IT 55730-79-5P 101069-39-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion into acetonide)

IT 55730-74-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion into epoxide)
IT 101069-30-1P 101069-36-7P 101069-45-8P 101069-62-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deprotection of)
IT **101069-34-5P** 101069-44-7P **101144-06-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)
IT 101069-35-6P 101069-43-6P 101069-50-5P 101069-51-6P 101069-60-7P 101069-61-8P 101144-15-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of)
IT 101144-07-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydride reduction of)
IT 101069-27-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)
IT 101069-26-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and oxidation to ketone)
IT 101069-48-1P 101069-49-2P 101069-58-3P 101069-59-4P 101144-14-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and partial decarboxylation of)
IT 59286-02-1P 101069-31-2P 101069-37-8P 101069-46-9P 101069-54-9P 101222-38-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and periodate oxidation of)
IT 101069-29-8P 101069-42-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with (carboxybutyl)triphenylphosphonium bromide)
IT 58399-68-1P 101069-32-3P 101069-38-9P 101069-47-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with (tributylphosphoranylidene)heptanone)
IT 101125-99-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with [(ethoxycarbonyl)methylene]triphenylphosphorane)
IT 55730-77-3P 55730-78-4P 61876-91-3P 61914-86-1P 101069-56-1P 101069-57-2P 101144-08-5P 101144-09-6P 101144-13-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and saponification of)
IT 101069-41-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and silylation of)
IT 101069-28-7P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use in synthesis of oxa prostaglandins)
IT 55730-73-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, in synthesis of oxa prostaglandins)
IT 55730-75-1P 58399-69-2P 101069-40-3P 101069-53-8P 101069-63-0P
101126-00-5P 101144-17-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 25952-53-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with anhydroglucitol derivative)
IT 27299-12-3P
RL: PREP (Preparation)
(starting material for synthesis of oxa prostaglandins)
IT 58399-72-7P 58437-46-0P 101144-10-9P 101144-11-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of, from anhydroglucitol)
IT 1099-45-2 17814-85-6 35563-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(use of, in synthesis of oxa prostaglandins)
IT **101069-33-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and borohydride reduction of)
RN 101069-33-4 HCAPLUS
CN 5-Heptenoic acid, 7-[4-[[(1,1-dimethylethyl)diphenylsilyl]oxy]tetrahydro-2-(3-oxo-1-octenyl)-3-furanyl]-, methyl ester, [2R-[2α(E),3β(Z),4β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L11 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1978:405999 HCAPLUS
DN 89:5999
ED Entered STN: 12 May 1984
TI 11-Deoxy-11-oxaprostaglandin compounds
IN Corey, Elias James; Eggler, James Frederick
PA Pfizer Inc., USA
SO Ger. Offen., 49 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07D307-32
CC 24-4 (Alicyclic Compounds)
Section cross-reference(s): 27, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	DE 2739277	A1	19780316	DE 1977-2739277	19770831
	DE 2739277	C2	19820609		
	JP 53037653	A2	19780406	JP 1977-109398	19770910
	JP 57055719	B4	19821125		
	BE 858682	A1	19780314	BE 1977-180893	19770914
	DK 7704083	A	19780316	DK 1977-4083	19770914
	NL 7710065	A	19780317	NL 1977-10065	19770914
	NL 169739	B	19820316		
	NL 169739	C	19820816		
	FR 2364912	A1	19780414	FR 1977-27747	19770914
	FR 2364912	B1	19801003		
	GB 1539364	A	19790131	GB 1977-38389	19770914
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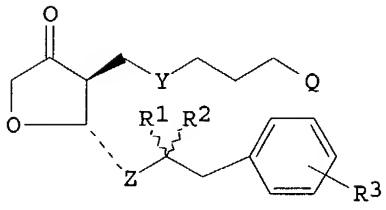

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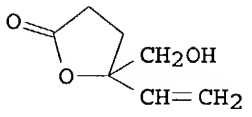
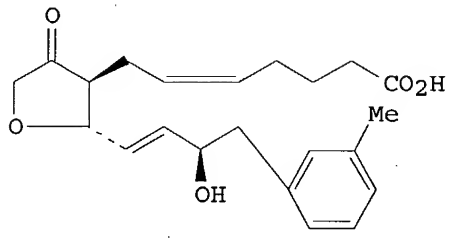


II



III

AB I (Q = carboxy or tetrazolyl, R1,R2 = H, OH; R3 = H, Cl, F, Me, MeO, CF3, A = CH2CH2 or cis-CH:CH, and Z = CH2CH2 or trans CH:CH) were prepared Thus, 1,2:5,6-diisopropylidene-D-mannitol was treated with Pb(OAc)4 to give YCHO (Y = 2,2-dimethyl-1,3-dioxolan-4-yl), which with (MeO)2P(O)CH2CO2Me gave YCH:CHCO2Me; this was vinylated and lactonized to give II, which was incorporated into conventional prostaglandin synthesis procedures to give ent-prostaglandin analogs, e.g., III.

ST prostaglandin oxa ent

IT Prostaglandins
RL: RCT (Reactant); RACT (Reactant or reagent)
(11-oxa analogs)

IT 1707-77-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(lead tetraacetate cleavage of)

IT 917-57-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(metalation-addition reaction of, with dioxolanylacrylate derivative)

IT 66601-86-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and borohydride reduction of)

IT 66601-88-5P 66674-02-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydride reduction of)

IT **66601-92-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)

IT **66601-91-0P 66674-04-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis or hydrogenation of)

IT 66601-82-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metalation-addition reaction with vinyllithium)

IT 58399-67-0P 58399-67-0P **66601-90-9P 66674-03-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)

IT 66601-84-1P 66601-85-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and oxidation with 3-chloroperbenzoic acid)

IT 66601-87-4P 66674-01-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and protection with dihydropyran)

IT 66601-89-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with (4-carboxybutyl)triphenylphosphonium bromide)

IT 66673-99-2P 66674-00-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with di-Me [2-oxo-3-(3-methylphenyl)propyl]phosphonate)

IT 15186-48-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with tri-Me phosphonoacetate)

IT 66601-83-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use in oxaprostaglandin synthesis)

IT **66601-93-2P 66674-05-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

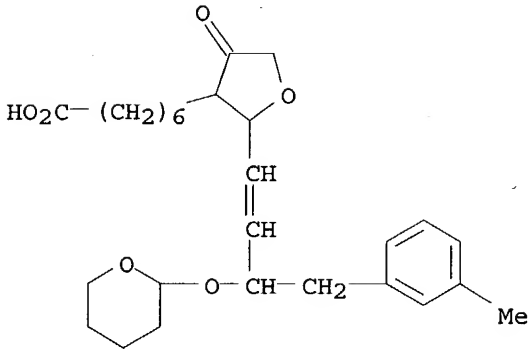
IT 5927-18-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isopropylideneglyceraldehyde)

IT 17814-85-6 61263-05-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(use of, in oxaprostaglandin synthesis)

IT **66601-92-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)

RN 66601-92-1 HCAPLUS

CN 3-Furanheptanoic acid, tetrahydro-2-[4-(3-methylphenyl)-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1-butenyl]-4-oxo-, [2S-[2α,(1E,3R*),3β]]- (9CI) (CA INDEX NAME)



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